

What is claimed is:

1. A heat exchanger comprising:

a plurality of tubes internally having tube-inside flow-through bores;

5 a first header pipe comprising:

a first partition wall that is internally formed;

a first pipe-inside flow-through bore portion that is internally formed and divided into two regions by the first partition wall; and

10 a first tube insertion bore portion formed on a first area of a side wall in slit shapes to accommodate first end portions of the tubes;

a second header pipe comprising:

a second partition wall that is internally formed;

a second pipe-inside flow-through bore portion that is internally formed and divided into two regions by the second partition wall; and

15 a second tube insertion bore portion formed on a first area of a side wall in slit shapes to accommodate second end portions of the tubes;

a first connector bore portion formed on the side wall of the first header pipe at a second area opposing to the first area and on the first partition wall at an area opposing to the second area, and opening to the two regions of the first pipe-inside flow-though bore portion;

20 a second connector bore portion formed on the side wall of the second header pipe at a second area opposing to the first area and on

the second partition wall at an area opposing to the second area, and opening to the two regions of the second pipe-inside flow-though bore portion;

5 an inlet connector block having one end portion accommodated in the first connector bore portion and permitting coolant to flow through the first pipe-inside flow-through bore portion; and

an outlet connector block having one end portion accommodated in the second connector bore portion and permitting the coolant to flow out through the second pipe-inside flow-through bore portion.

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2. The heat exchanger according to claim 1, wherein when the inlet connector block is inserted to the first connector bore portion, a centerline of the end portion of the inlet connector block is aligned with a centerline of the first partition wall in a cross section of the heat 15 exchanger.

3. The heat exchanger according to claim 1, wherein when the outlet connector block is inserted to the second connector bore portion, a centerline of the end portion of the outlet connector block is aligned 20 with a centerline of the second partition wall in a cross section of the heat exchanger.

4. The heat exchanger according to claim 1, wherein in an inside of

the first connector bore portion, a distal end surface of the end portion of the inlet connector block is inserted to a position in front of an end face of the first connector bore portion on the partition wall side, and the distal end surface is open to the two regions of the first pipe-inside flow-through bore portion.

5. The heat exchanger according to claim 1, wherein in an inside of the second connector bore portion, a distal end surface of the end portion of the outlet connector block is inserted to a position in front of an end face of the second connector bore portion on the partition wall side, and the distal end surface is open to the two regions of the second pipe-inside flow-through bore portion.

10 6. The heat exchanger according to claim 1, wherein the distal end surface of the end portion of the inlet connector block is closed, and the side wall of the end portion of the inlet connector block has a plurality of bore portions.

15 20 7. The heat exchanger according to claim 6, wherein in an inside of the first connector bore portion, a distal end surface of the end portion of the inlet connector block is inserted to be in abutting engagement with an end face of the first connector bore portion on the partition wall side, and the bore portions are open to the two regions of the first

pipe-inside flow-through bore portion.

8. The heat exchanger according to claim 1, wherein the distal end surface of the end portion of the outlet connector block is closed, and the side wall of the end portion of the outlet connector block has a plurality of bore portions.

9. The heat exchanger according to claim 8, wherein in an inside of the second connector bore portion, a distal end surface of the end portion of the outlet connector block is inserted to be in abutting engagement with an end face of the second connector bore portion on the partition wall side, and the bore portions are open to the two regions of the second pipe-inside flow-through bore portion.

10. The heat exchanger according to claim 1, wherein the end portion of the inlet connector block includes an in-pipe.

11. The heat exchanger according to claim 10, wherein the in-pipe internally has a communicating bore formed in a circular cross section.

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12. The heat exchanger according to claim 10, wherein the in-pipe internally has a communicating bore formed in a rectangular cross section.

13. The heat exchanger according to claim 10, wherein the in-pipe internally has a communicating bore formed in an elliptical cross section.

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14. The heat exchanger according to claim 1, wherein the end portion of the outlet connector block includes an out-pipe.

10 15. The heat exchanger according to claim 14, wherein the out-pipe internally has a communicating bore formed in a circular cross section.

16. The heat exchanger according to claim 14, wherein the out-pipe internally has a communicating bore formed in a rectangular cross section.

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17. The heat exchanger according to claim 14, wherein the out-pipe internally has a communicating bore formed in an elliptical cross section.

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